

Proposal ID	PI Last Name	PI Org	Proposal Title	Element	Total Budget: FY04-08
ASTP-ASCT					
054	Troutman	LaRC	Revolutionary Aerospace Systems Concepts (RASC) - Exploration Mission Synergy Assessments	ASCT	\$ 3,999,431
101	Moses	LaRC	Analysis of In-Space Assembly of Modular Systems	ASCT	\$ 4,800,000
163	Crawford	ARC	Trade Study on Autonomous Operations for the Crew Exploration Vehicle	ASCT	\$ 2,499,029
164	Youngquist	KSC	Spacecraft Electrostatic Shielding-Radiation Protection, Propulsion, Energy Delivery	ASCT	\$ 1,197,000
167	Schoenenberger	LaRC	Tool Development for Abort Scenario Analysis and Failure Mode Mitigation	ASCT	\$ 7,989,755
170	Hemmati	JPL	End-to-End Hardware and Link Modeling of Optical Communications Systems	ASCT	\$ 6,445,597
172	Oneil	MSFC	Advanced Technology Lifecycle Analysis System (ATLAS)	ASCT	\$ 7,998,266
175	Zapata	KSC	A First Ever Application of 21st Century Supply Chain Modeling, Simulation, and Analysis to ETO	ASCT	\$ 4,000,000
178	Muscettola	ARC	Fully-Automated Mission-Operations Systems: Technologic, Economic, and Human-Centered Tradeoff Assessment	ASCT	\$ 2,720,002
179	Oberto	JPL	NASA Exploration Design Team	ASCT	\$ 7,140,000
180	Bradley	LaRC	Joint Technical Architecture for Robotic Systems (JTARS)	ASCT	\$ 5,843,010
183	Banks	DFRC	Aero-Assist Mars Transfer Vehicle System Technology Design	ASCT	\$ 4,000,000
184	Fitts	JSC	Human-Centered Design	ASCT	\$ 5,749,619

ASTP-AMSC					
56	Abel	GRC	Advanced Mechanisms and Tribology Technologies for Durable Lightweight Actuation and Mechanical Power Transmission Systems	AMSC	\$ 14,801,829
57	Brandon	JPL	A Structural Health System for Crew Habitats	AMSC	\$ 9,832,000
63	Collins	LaRC	Advanced Materials and Structures for the Modular Assembly of Large Space Platforms	AMSC	\$ 15,000,000
65	Connell	LaRC	Flexible Fabrics with High Thermal Conductivity for Advanced Spacesuits	AMSC	\$ 14,740,000
68	Lawrence	MSFC	Lightweight Non-Metallic Thermal Protection Materials Technology	AMSC	\$ 14,970,000
ASTP-CCEI					
102	Heaps	GSFC	Laser 3D Vision for Robotic and Manned Lunar Surface Exploration	CCEI	\$ 10,887,000
108	Tratt	GSFC	Laser/Lidar Technologies For Exploration	CCEI	\$ 15,000,000
112	Stoica	JPL	Self-Reconfigurable Analog/Mixed-Signal Electronics for Extreme Environments	CCEI	\$ 9,100,000
114	Hodson	LaRC	Reconfigurable Scalable Computing for Space Applications	CCEI	\$ 14,790,923
115	Krishnakumar	ARC	A Plug-and-Play Architecture for Real-Time Intelligent Avionics	CCEI	\$ 8,399,905
ASTP-SISM					
37	Lohn	ARC	Automated Design of Spacecraft Systems	SISM	\$ 6,720,000
147	Trejo	ARC	Embedded Real-Time Advisory System for Crew-Automation Reliability	SISM	\$ 5,498,506
152	Turmon	JPL	Decision Support System for Health Management	SISM	\$ 8,270,000

155	Nourbakhsh	ARC	Peer-to-Peer Human-Robot For Assembly and Maintenance	SISM	\$ 9,316,872
160	Holzmann	JPL	Reliable Software Systems Development	SISM	\$ 9,896,000
161	Ambrose	JSC	Telepresence of Remote Supervision of Robots	SISM	\$ 13,896,927

ASTP-PPCS					
125	Westheimer	JSC	Heat Rejection Systems for Lunar Missions	PPCS	\$ 10,100,000
126	Jacobson	GRC	Multi-100 kW, Long Life Hall Thruster Technology	PPCS	\$ 8,306,107
128	Bailey	GRC	Nanomaterials and Nanostructures for Space PV	PPCS	\$ 6,031,300
129	Lewis	JPL	Ultralight Zero-Boil-Off Cryogenic Propellant Storage System	PPCS	\$ 14,800,000
130	Bugga	JPL	Advanced Electrochemical Energy Storage Systems for Future Robotic and Human Exploration Missions	PPCS	\$ 14,300,000
			ASTP Grand TOTAL		\$ 299,039,078

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TMP-HESS					
81	Graves	JSC	Evaluate and Demonstrate Inflatable Aeroshells for Aeroassist Functions for the Exploration Initiative and International Space Station Down-Mass	HESS	\$ 30,564,000
85	Howell	MSFC	In-Space Cryogenic Propellant Depot	HESS	\$ 39,990,981
89	Howell	MSFC	Modular, Reconfigurable High-Power Technology Demonstrator	HESS	\$ 29,397,156
TMP-ASPS					
14	Figueroa	SSC	Integrated Health Management with Intelligent Networked Elements	ASPS	\$ 7,900,000
18	Duncavage	JSC	ISS as a Testbed for Vehicle Health Management Technologies	ASPS	\$ 11,900,000
92	Lewis	JSC	Advanced Docking/Berthing System for Rendezvous Operations and In-Space Assembly of Crewed and Autonomous Vehicles and Structures	ASPS	\$ 29,300,000
142	Daues	JSC	Test Articles for Early Habitat Design Trades and Surface System Requirements Definition	ASPS	\$ 16,700,000
TMP-ASO					
64	Mueller	JPL	Micro-Inspector Spacecraft for Space Exploration Missions	ASO	\$ 18,000,000
67	Culbert	JSC	In Space Robotic Assembly and Maintenance	ASO	\$ 16,199,665
69	Kearney	JSC	Advanced EVA Systems to Support the Vision for Space Exploration	ASO	\$ 13,300,000
TMP-LPSO					

106	Wilcox	JPL	Rough and Steep Terrain Lunar Surface Mobility	LPSO	\$ 25,300,000
137	Sanders	JSC	Resolve: Development of a Regolith Extraction and Resource Separation and Characterization Experiment for the 2009/2010 Lunar Lander	LPSO	\$ 24,000,000

TMP-InSTEP					
119	Chato	GRC	Experimentation for the Maturation of Deep Space Cryogenic Refueling	InSTEP	\$ 2,995,940
121	Kinard	LaRC	Accommodations for In-STEP Exposure Experiments on ISS	InSTEP	\$ 3,000,000
136	Ambrose	JSC	Dexterous Robot Flight Demonstration with EVA Crew	InSTEP	\$ 3,000,177
134	Chang-Diaz	JSC	System Design of a High Power Electric Propulsion Test Platform	InSTEP	\$ 2,831,233
			TMP Grand Total		\$ 274,379,152